



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0328; Directorate Identifier 2014-NE-07-AD

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for all Rolls-Royce plc (RR) RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan engines. The NPRM proposed to require modification of the engine by removing any electronic engine control (EEC) that incorporates EEC software standard prior to version B7.2 and installing an EEC eligible for installation. The NPRM was prompted by failure of the intermediate pressure (IP) turbine disk drive arm and subsequent overspeed and burst of the IP turbine disk on an RR RB211 Trent turbofan engine. This action revises the NPRM by clarifying the costs of compliance, by clarifying that correction of the unsafe condition can be achieved either by installing upgraded software in the EEC or by installing an EEC with upgraded software incorporated, and by clarifying the installation prohibition statement. We are proposing this supplemental NPRM (SNPRM) to prevent overspeed of the IP turbine disk, resulting in failure of the turbine blades or the IP turbine disk and subsequent uncontained release of the disk

and/or turbine blades, which could lead to damage to the engine and damage to the airplane.

DATES: We must receive comments by [INSERT DATE 14 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: 202-493-2251.

For service information identified in this SNPRM, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; Internet: <https://www.aeromanager.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0328; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Wego Wang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0328; Directorate Identifier 2014-NE-07-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this SNPRM. We will consider all comments received by the closing date and may amend this SNPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will

also post a report summarizing each substantive verbal contact with FAA personnel concerning this SNPRM.

Discussion

We issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM was published in the *Federal Register* on July 11, 2014 (79 FR 40018). The NPRM proposed to correct an unsafe condition for the specified products.

Actions Since Previous NPRM was Issued

Since we issued the NPRM (79 FR 40018, July 11, 2014), we found that we included a cost for parts in the Costs of Compliance paragraph. As this proposed AD requires an upgrade to EEC software, there are no associated parts costs. We changed the Costs of Compliance paragraph in this proposed AD by removing the reference to parts costs.

We changed paragraph (e) of this proposed AD to more clearly state the requirement to modify affected engines either by installing upgraded software in the EEC, or by installing an EEC with upgraded software incorporated.

We changed paragraph (f) of this proposed AD to more clearly prohibit installation of an EEC that incorporates a software standard earlier than Version B7.2 into any engine, and also prohibit installation of any software standard earlier than Version B7.2 into any EEC.

Comments

We received no comments on the NPRM (79 FR 40018, July 11, 2014).

FAA's Determination

We are proposing this SNPRM because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the NPRM (79 FR 40018, July 11, 2014). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Proposed Requirements of this SNPRM

This SNPRM would require accomplishing the actions specified in the NPRM, except as discussed under "Actions Since Previous NPRM was Issued."

Costs of Compliance

We estimate that this proposed AD affects about 140 engines installed on airplanes of U.S. registry. We also estimate that it would take about 2 hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$23,800.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Rolls-Royce plc: Docket No. FAA-2014-0328; Directorate Identifier 2014-NE-07-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 14 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan engines.

(d) Reason

This AD was prompted by failure of the intermediate pressure (IP) turbine disk drive arm and subsequent overspeed and burst of the IP turbine disk on an RR RB211 Trent turbofan engine. We are issuing this AD to prevent overspeed of the IP turbine disk, resulting in failure of the turbine blades or the IP turbine disk and subsequent uncontained release of the disk and/or turbine blades, which could lead to damage to the engine and damage to the airplane.

(e) Actions and Compliance

(1) Unless already done, within 12 months after the effective date of this AD, modify the engine by removing electronic engine control (EEC) software earlier than Version B7.2.

(2) Install EEC software eligible for installation.

(f) Installation Prohibition

After modification of an engine as required by paragraph (e) of this AD, do not install any EEC that incorporates a software standard earlier than Version B7.2 into any engine, or install any software standard earlier than Version B7.2 into any EEC.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(h) Related Information

(1) For more information about this AD, contact Wego Wang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2014-0051, dated March 6, 2014, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-0328-0003>.

(3) RR Alert Service Bulletin No. RB.211-73-AH001, dated July 17, 2013, which is not incorporated by reference in this AD, can be obtained from Rolls-Royce plc, using the contact information in paragraph (h)(4) of this AD.

(4) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE24 8BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; or Internet: <https://www.aeromanager.com>.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(i) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on November 18, 2014.

Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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